

Preliminary research on the Japanese content development process: Cases of manga

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ABSTRACT

The purpose of this article is twofold: to understand the creators' cognitive processes in content (*manga*) development and to explore the process with an emphasis on the dyadic relationship between *mangaka* and editor. The first part of this article focuses particularly on the initial stage of the manga creation process: from ideation to storyboard. The analytical framework adopted in this article, the 'Geneptore model' of creative cognition, is introduced and a case of well-known female author of Japanese *shōjo manga* (girls' comics) is analysed using the model. In the second part of the article, the creation process of Japanese *manga* with an emphasis on the dyadic relationship between *mangaka* and editors in ideation is explored. Although this paper is preliminary in nature, it is suggested that the creation necessitates trust in the dyadic relationship, which, in turn, facilitates the cycle of the geneptore process.

Introduction

In 2002, Douglas McGray used the term 'GNC (Gross National Cool)' to refer to Japan as a cultural superpower. He stated that 'Japan's global cultural influence has quietly grown. From pop music to consumer electronics, architecture to fashion, and animation to cuisine, Japan looks more like a cultural superpower today than it did in the 1980s, when it was an economic one' (McGray 2002). Over the past few years, the Japanese content industry has been attracting considerable attention as the Japan's next leading industry. However, even with an optimistic forecast, most segments of the Japanese content industry have been experiencing a downward trend since around 1998.

On the consumer front, a declining youth population, recession, and rising mobile phone tariffs are often cited as reasons for this trend. On the side of the suppliers, the content environment is occasionally referred to as too primitive and vulnerable to be termed an 'industry'. For example, the infamous, harsh labour conditions of the Japanese animation industry have even been known to attract foreign tourists. Despite indications that the Japanese content industry does not necessarily have the brightest future, it still shows tremendous potential and scope.

In an interview with a Japanese magazine, Douglas E. Glen, CEO, IMAGI International—who delivered *Astro Boy*'s ¹⁾ first CGI feature film to the world in 2009—stated that his job is to look for stories that feature heroes whom people around the world can iconize. Further, he observed that Japan is a reservoir of such stories (*Shukan Daiyamondo* [Diamond Weekly Magazine] 2008). Moreover, John A. Lasseter, Executive Vice President, Creative, PIXAR, proposed that the most important aspect of animation is story creation (Harada, 2004). This implies that one of the most significant factors in the success of the content industry is the power of story creation. If story creation is the most important factor, how are these stories created?

The purpose of this article is to understand the creator's cognitive process during content (*manga*) development. The following sections offer a brief review of the current situation of Japanese *manga* and introduce the analytical framework adopted in this article—the 'geneplore model' of creative cognition. The case of well-known authors of Japanese *shôjo manga* (literally 'girls' comics'; however, in reality, female-oriented comics) is analysed using this model. This article also aims to explore the creation system of Japanese *manga* with an emphasis on the dyadic relationship between *mangaka* (author) and editors during ideation and the subsequent *manga* development process.

Market overview

A. Japanese content industry

According to the *Dejitaru Kontentsu Hakusho* 2010 (Digital Content White Paper 2010, p.34), in 2009 the market size of the Japanese content industry was estimated to be JPY 12.1 trillion (USD 157.1 billion/EUR 114.2 billion ²⁾), which is a decrease of 6.0% from the previous year. It was deemed to be second only to the United States industry (Table 1).

Table 1: Top 5 entertainment and media markets (US\$ millions)

	2005	2006	2007	2008	2009
U.S.A.	433,842	454,572	469,096	460,997	428,140
Japan	150,975	160,716	166,999	169,298	164,337
Germany	80,563	84,336	87,797	89,089	88,526
China	41,297	47,245	57,496	69,166	75,815
U.K.	70,532	72,084	76,269	76,154	73,245

Source: PricewaterhouseCoopers, "Global Entertainment and media outlook: 2010-2014."

1) *Astro Boy* is one of the best-known and most-loved action heroes in the world. Originally created in Japan by Osamu Tezuka, popularly known as the 'god of *manga*', in the early 1950s, *Astro Boy* has played the protagonist in over 300 television episodes and several 2D features. (Retrieved 18 March 2009, from <http://www.prnewswire.co.uk/cgi/news/release?id=204598>.)

2) The foreign exchange rates used in this article are USD/JPY = 77 and EUR/JPY = 106.

In fact, over the past few years, the Japanese content industry has been attracting considerable attention as the next leading industry. According to the Japanese government's *Shin Seicho Senryaku* (New Growth Strategy) and *Sangyo Kozo Bijon* (Industrial Structure Vision 2010) announced in June 2010, it is expected that 'Japan's cultural industries, such as design, animation, fashion and movies will become a strategic sector that drives the nation's future economic growth'. Despite this overexpectation, the industry size reduced from JPY 13.2 trillion (USD 171.4 billion/EUR 124.5 billion) in 2007 to JPY 12.1 trillion (USD 157.1 billion/EUR 114.2 billion) in 2009 (Digital Content White Paper 2010, p.38). On the basis of this information, the outlook for the Japanese content industry is uncertain, yet it continues to have enormous potential and scope.

In Japan, the two most critical aspects related to the content industry are the global market development strategy and the 'One Source, Multi Use' strategy. *Nihon to Sekai no Kontentsu Shijo Databasesu* 2010 (Database on Japan and Overseas Content Markets 2010, p.87) estimates that the potential overseas market for Japanese characters, games, *anime* (Japanese animation), *manga* (Japanese comics), movies, and TV programmes is JPY 3.5 trillion (USD 45.5 billion/EUR 33.0 billion); currently, the market is only worth JPY 1.9 trillion (USD 24.7 billion/EUR 17.9 billion). The New Growth Strategy has set a goal of generating JPY 1 trillion (USD 13.0 billion/EUR 9.4 billion) from the Asian market in the near future. Thus, development of the global market is crucial for the Japanese content market.

The 'One Source, Multi Use' strategy is related to the adaptation of one source (e.g. a *manga* story) for multiple uses (e.g. *anime*, dramas, and films). Among the numerous content categories, Japanese *manga* have been popular as the original source for films and *anime* because of their reputation for having strong story lines. In 2009, 150 TV programmes and films were adapted from *manga*; 100 were adopted in 2007 and 120 in 2008. From among the 150, 70 TV *anime*, 29 TV dramas, and 35 films were produced (*Shuppan Shihyo Nempo* [The Publication Annual] 2010, p.217). Table 2 presents a list of live-action films based on *manga*. According to certain estimates, second and third reproduction uses of *manga* exceed JPY 3 trillion (USD 39.0 billion/EUR 28.3 billion) (Nakano 2008).

B. The Japanese *manga* market

In Japan, *Manga* ³⁾ are considered to be one of the most competitive pop-cultural products, such as computer games and *anime*. According to *Shuppan Shihyo Nempo 2010* (The Publication Annual 2010), the total sales of all publications including books and magazines in Japan in 2009 was JPY 1.9 trillion (USD 24.7 billion/EUR 17.9 billion), which was down 3.2% year-on-year (y-o-y) and falling below JPY 2 trillion for the first time since 1988. In 1996, the prime period of sales, the total was JPY 2.7 trillion (USD

3) For more details regarding Japanese *manga*, please refer to Matt Thorn's website: <http://www.matt-thorn.com>.

Table 2: Live-action films based on *manga*

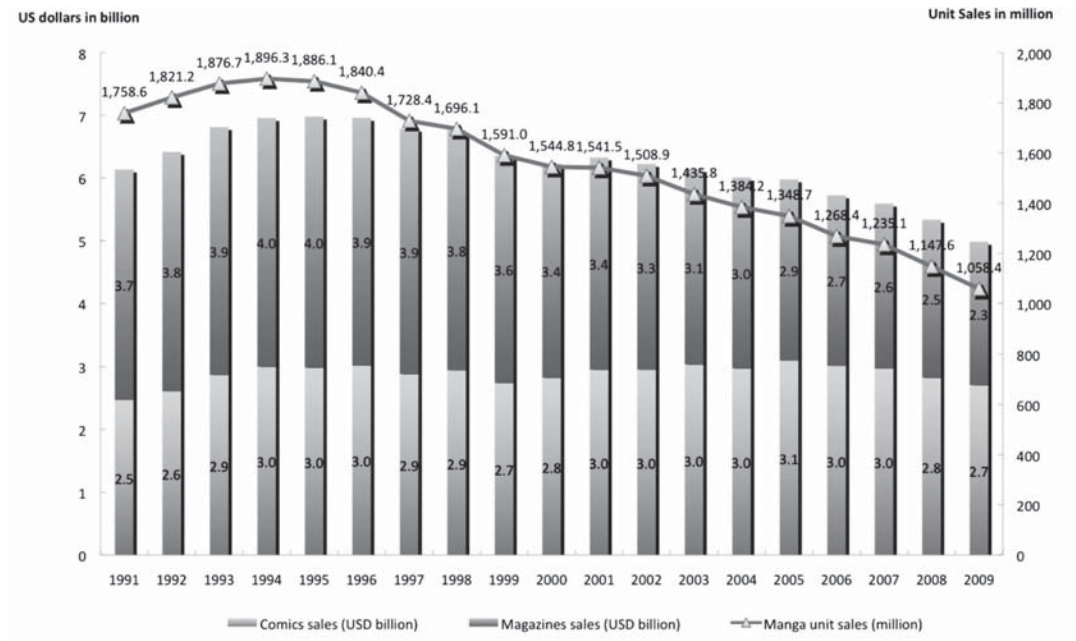
Release	Live-action film titles in Japan	Author
2005	<i>NANA</i> (Nana)	Ai Yazawa
2005	<i>Tacchi</i> (Touch)	Mitsugu Adachi
2005	<i>Kashiramoji Di</i> (Initial D)	Hidekazu Shigeno
2005	<i>ALWAYS 3-chome no Yuhi</i> (ALWAYS-Sunset on the Third Street)	Ryohei Saigan
2005	<i>Onaji Tsukiwo mite iru</i> (The Moon Always Watching Over)	Seiki Tsuchida
2005	<i>Tokyo Zonbi</i> (Tokyo Zombie)	Yusaku Hanakuma
2006	<i>Umizaru 2</i> (Umizaru 2: Limit of Love)	Shuho Sato
2006	<i>Saishu Heiki Kanojo</i> (She, the Ultimate Weapon)	Shin Takahashi
2006	<i>Warau Daitenshi Mikaeru</i> (Laughing Archangel Michael)	Izumi Kawahara
2006	<i>Gegege no Kitaro</i> (GegegeKitaro)	Shigeru Mizuki
2006	<i>Damenzu Walker</i> (Damens Walker)	Mayumi Kurata
2006	<i>ES</i> (Eternal Sabbath)	Fuyumi Soryo
Live-action film titles in the US (dates to be arranged)		
2008	<i>Mahha GoGoGo</i> (Speed Racer)	Tatsuo Yoshida
2009	<i>Akira</i> (Akira)	Tatsuhiro Otomo
2009	<i>Gunnm</i> (Battle Angel Alita)	Yukito Kishiro
2010	<i>Dragon Ball</i> (Dragon Ball)	Akira Toriyama
Unknown	<i>Kiseiju</i> (Parasyte)	Hitoshi Iwaaki
Unknown	<i>MONSTER</i> (Monster)	Naoki Urasawa

Source: Adapted from Abe (2005, p.49) for Japan and Martin (2008) for the US.

35.1 billion/EUR 25.5 billion). Thus, 27% of the market was lost in thirteen years by 2009. The unit sales of 3.0 billion included 0.7 billion units of books and 2.3 billion units of magazines.

In 2009, the *manga* market (including periodical magazines and paperbacks), garnering almost a quarter (21.6%) of the total market share, was estimated to be JPY 419 billion (USD 5.4 billion/ EUR 4.0 billion), which was down 6.6% year-on-year. This represents unit sales of 1,058.4 million that included 455 million units of paperbacks and 603 million units of magazines. This accounts for 35.4% of the total units of all publications sold in Japan (Figure 1).

Given that the Japanese population was estimated at 128 million in 2010, it is not difficult to imagine the magnitude of the *manga* market in Japan. In comparison to the large size of the Japanese market, its overseas equivalents are small (Table 3).

Figure 1: Japanese *manga* market (1991–2009)

Source: The Publication Annual (2007—2010).

Table 3: Comparison of three major markets of *manga*, comics, and bandedessinée

	Japan	U.S.A.	France
Content Total*1	USD164 billion	USD 428 billion	USD 61 billion
<i>Manga</i> Sales*2	USD5 billion (2009)	USD140 million (2009)	EUR100 million (2010)
<i>Manga</i> Unit Sales	1 billion		34 million*3
Population	128 million	315 million	62 million

Sources: *1 PricewaterhouseCoopers, "Global Entertainment and media outlook: 2010-2014."

*2 *Asahi Shimbun* (2011).

*3 Estimated based on JETRO (2009).

Characteristics of *manga*

A. How to read *manga*

Unlike the Western reading style, Japanese people read *manga* from right to left. For example, in Figure 2, reading would begin at (1) (upper right-hand frame) and continue through (2), (3), (4), (5), (6), and (7). Moreover, the lines of the characters are written vertically and are read from right to left. Western editions of *manga* are now also increasingly being published in the authentic right-to-left format (Ashby 2003).



Figure 2: Reading manga
Source: Aoike (2005, p.117).

The Japanese language is unique in that it comprises both ideograms and phonograms. Further, the two writing systems of the Japanese orthography are processed differently: *kana* (syllabic symbols) are processed in a manner that is similar to other phonetic languages such as English, while *kanji* (a logographic writing system) is processed in a manner that is similar to other logographic languages such as Chinese. As a result of this duality, native speakers of Japanese use different parts of the brain when reading. Yoro stated that *manga* was created and developed in Japan because it was suited to the manner in which the Japanese brain functions when reading (Yoro and Makino 2005).

On average, not surprisingly, a Japanese person reads 16 pages of a *manga* per minute (Berndt, 1991). Typically, one episode of a weekly *manga* serial has 19–20 pages; thus, a Japanese individual can finish it less than a minute and a half. It is possible that this reading habit may diminish with the prevalence of the digital *manga* format. The most popular *manga* magazine for boys, the *Shōnen Jump*, or Weekly Jump (Figure 3), has approximately 470 pages (19–20 pages per episode) and sells for only JPY 240 (USD 3.12/EUR 2.26). The large volume of *manga* produced combined with the instinctive and well-experienced *manga* readers (consumers) results in the existence of a vast reservoir of *manga* stories in Japan.

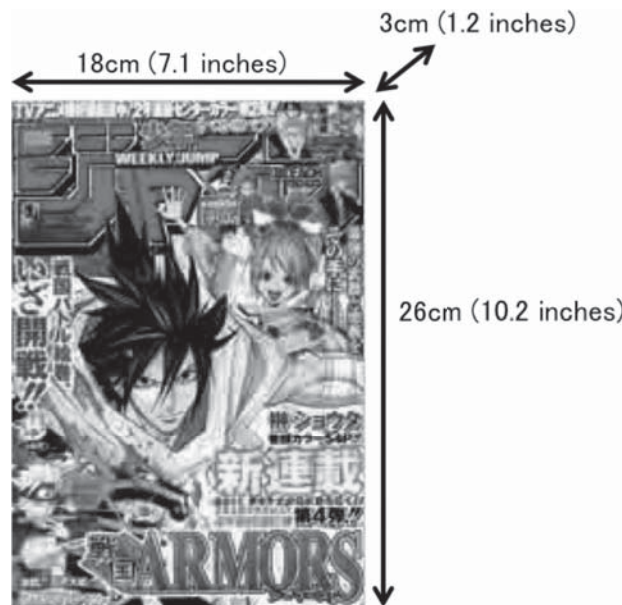


Figure 3: Cover page of the Shōnen Jump
Source: *Shōnen Jump* (Retrieved 8 March 2011
from <http://www.shonenjump.com/e/index.html>.)

B. Osamu Tezuka, the 'god of *manga*'

Another characteristic of Japanese *manga* is that almost 90% of it can be categorized as *Tezuka-kei* (or Tezuka style). The late Osamu Tezuka, popularly known as the 'god of *manga*' in Japan, exerted a great influence on his successors. His works were essentially story-oriented and labelled 'story *manga*'. Numerous *mangaka* follow the Tezuka style of story creation, which is considered to be one of their strengths. Naoki Urasawa, the author of *Pluto*, the adult adaptation of *Astro Boy*, is one example of a *mangaka* who has been greatly influenced by Tezuka. Further, two television documentaries on *shōjo manga* (girls' comics) presented by NHK (*Nihon Hoso Kyokai* [Japan Broadcasting Corporation]) featured popular Japanese female *mangaka* who were representatives of the golden age of *manga* during the 1970s and 1980s. It is not surprising that 11 out of 12 *mangaka* admitted to Tezuka's influence on their career and creation style (NHK BS2 2004, 2005, 2006). Given Tezuka's influence on *mangaka*, it appears that story creation is a critical factor in Japanese *manga*.

The following sections discuss the analytical framework adopted in this article: the geneplore model of creative cognition that focuses on the cognitive processes and structures underlying creative thinking. First, the subject of creative cognition is introduced, followed by a brief outline of the 'geneplore model'.

Creative cognition

In the field of marketing and consumer behaviour, Moreau and Dahl (2005) claim that the creative cognition approach is appealing because it enables the well-developed traditional concepts in cognitive psychology, such as encoding/retrieval and analogical thinking, to provide a basis for understanding creative thought. It rejects the idea that 'extraordinary forms of creativity are the products of minds that operate according to principles that are fundamentally different than those associated with normative cognition' (Ward, Smith and Finke 1999, p.191). As such, creative and non-creative thinking can be conceptualized along a continuum without a solid boundary delineating the two.

Although these comments may appear to demystify creativity, they do not intend to minimise or degrade the power of creativity. Smith, Ward and Finke (1995a) claim that mental processes are considered to be the essence and engine of creative endeavours. Furthermore, there are numerous approaches that can be used to understand creativity; no single creative process has been identified as the right one. The creative cognition approach focuses on the cognitive processes and structures that underlie creative thinking.

In research on marketing and consumer behaviour, there are only a few articles that deal with the creators' cognitive aspects during product development. Dahl, Chattopadhyay, and Gorn (1999) examined the manner in which visual imagery influences the production of more creative products. Goldenberg, Mazursky, and Solomon (1999) derived a framework termed 'templates' that is a facilitator for replicating new product ideation. In Dahl and Moreau (2002), analogical thinking was introduced in the context of new product development. Moreover, Moreau and Dahl (2005) employed the *geneplore* model, which will be discussed later in this article, in order to detect the effects of input and time constraints on consumer creativity.

These studies have contributed to the otherwise uncultivated field of product development in marketing. However, in reality, it is difficult to imagine that only one cognitive strategy is used to generate ideas or develop a concept. In order to better understand the creative process, an integrated model that describes the entire process should be examined.

A. The *geneplore* model

The intention of the creative cognition approach (Finke, Ward, and Smith 1992) is to improve and optimise creativity. It distinguishes between the generative and exploratory processes in the development of creative ideas (Figure 4).

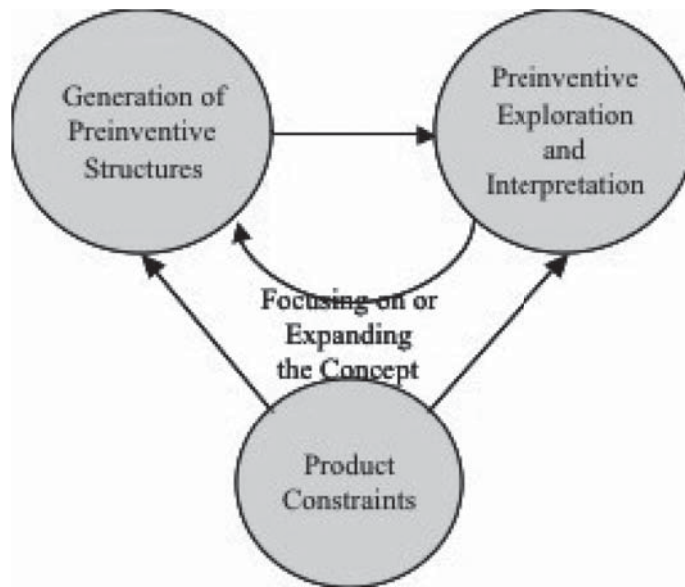


Figure 4: Geneptore model
Source: Finke, Ward and Smith 1992.

In the initial stage of a creative task, generative processes are believed to be used for creating the preliminary mental representations of a solution, termed 'preinventive structures', that serve as a precursor to the final product. Generative processes, such as retrieval, association, mental synthesis, mental transformation, and analogical transfer, give rise to preinventive structures. They may comprise mental images, verbal combinations, category exemplars or mental models.

Preinventive exploration begins once a preinventive structure has been generated. Subsequently, people search for different meanings to attach to and/or to interpret the rudimentary solution. These exploratory processes include attribute finding, conceptual interpretation, functional inference, hypothesis testing, and identifying limitations. Once these exploratory processes are completed, the preinventive structure may be refined or regenerated, depending on what is discovered during the exploratory phase.

As indicated in Figure 4, creative processes involve cycling between generation and exploration, with the preinventive form being altered and updated after each cycle until a satisfactory product is achieved. This cycle, referred to as the 'geneptore cycle', is then repeated until the structure is developed into a finalized product. At any point in the geneptore cycle, constraints may be imposed in the generative and exploratory phase in order to restrict the nature of the final product. These include constraints on time, type of products, general category to which it belongs, features it possesses, and the functions it may have (Finke 1995, pp.322–323).

However, in actual business scenarios, being creative is necessary, albeit not sufficient. Creative ideas and thoughts must be developed into commercially viable products. Therefore, the next step in the creative cognition approach is creative realism (Finke 1995).

B. Creative realism

Creative realism refers to the study of creative ideas that deal with realistic issues or ideas possessing creative potential. Finke (1995) asserts that creativity must include more than just new ideas or wild imaginations; it must also have realistic and enduring consequences. Therefore, it is necessary to distinguish between unproductive and productive creativity for creative cognition. In creative realism, one attempts to combine the best of both worlds: to develop ideas that are not only original and inspiring but also likely to have a genuine impact on actual problems, needs, and values. In other words, creative realism necessitates that someone evaluates the outcome; in *manga*, that 'someone' is editors and fans (consumers).

According to Finke (1995), creative realism has two major themes: structural connectedness and imaginative divergence. In order to achieve creative realism, it is necessary to have a certain amount of continuity between old and new ideas; this is known as structural connectedness. In order to be realistic, creative ideas must be structured; moreover, the structure must have essentially evolved from previously established ideas and principles. In Finke's view, in order to be practically creative, innovation or invention must not be regarded as a creative leap, but instead as an incremental process.

The second theme is that ideas in creative realism must also exhibit inspirational qualities that excite the imagination and lead to meaningful exploration. This is referred to as imaginative divergence. It distinguishes genuinely exciting and innovative ideas from those that appear sensible and realistic but are unproductive. Imaginative divergence promotes what has been referred to as divergent thinking, wherein one explores unconventional possibilities, associations, and interpretations (Finke 1995, pp.303–305).

In the context of product development in business, it is necessary to have a system that facilitates and encourages continuous creativity; thus, incremental innovation is valued. However, Finke warns that an excessive adherence to prior knowledge results in 'conservative realism'. Therefore, merely having knowledge is not sufficient; one must use that knowledge in unconventional ways to produce creative thoughts.

Although the present research largely depends on secondary data available from publications and is preliminary in nature, the author has attempted to explore (1) the mental process of creative cognition and (2) the outer driver of the process.

Case study: Yasuko Aoike, *From Eroica with Love*

Yasuko Aoike was born on 24 July 1948 in Shimonoseki, Yamaguchi Prefecture, which is located in the western end of Honshu Island in Japan. She made her debut in *Ribbon Magazine* with *Sayonara Nanetto* (Goodbye, Nanette) when she was only fifteen years old. Introduced in 1977, *Eroikayori Ai wo Komete* (From Eroica with Love) was a bestseller (37 Japanese volumes from 1977 to 2010), and continues to be serialized. In 2004, *Eroica*'s English version was published in the US.

From Eroica with Love follows the adventures of 'a British aristocrat, Dorian Red, Earl of Gloria, who moonlights as an international art thief using the alias 'Eroica' and his opposite number, a German NATO intelligence agent named Major Klaus Heinz von dem Eberbach' (<http://www.eroicafans.org/>). Dorian leaves behind notes at the crime scene signed 'From Eroica with Love'.

A. The initial process of creating *Eroica* ⁴⁾

Aoike's creation process for *Eroica* involves the following five steps: (1) plot, (2) revised plot, (3) script, (4) storyboard, and (5) finished work (Aoike 2005, NHK BS2 2005a).

(1) Plot

One week after the deadline for the previous episode, Aoike holds a meeting with her editor regarding the next episode. These meetings take approximately three to four hours in a casual setting such as a coffee shop. At the initial idea generation stage, she is loyal to her interests and the story is sketchy. The meeting resembles a brainstorming session; however, occasionally, the ideas are immediately judged. For example, the story of a psychic, one of Aoike's original ideas for *Eroica*, was initially rejected. She is also informed of the feedback from fans. Overall, Aoike's idea generation process begins rather interactively. She makes a note of all the ideas that have been discussed at the meeting on her B6-size notepad (Figure 5).

(2) Revised plot

In Aoike's story creation process, she conducts steps (2) to (4) independently. Aoike scrutinizes the plot, (1) above, and revises it in order to make it consistent. When this plot extends across approximately 34 pages of *manga* (one serial of monthly *manga*), she begins considering new ideas. The next step, i.e. writing a script, is conducted approximately two days later. In a one-shot *manga* (*yomikiri*), or two-volume stories, the story line is decided upon in detail, even before the creation process begins.

4) This section is based on Aoike (2005) and NHK BS2 (2005b).

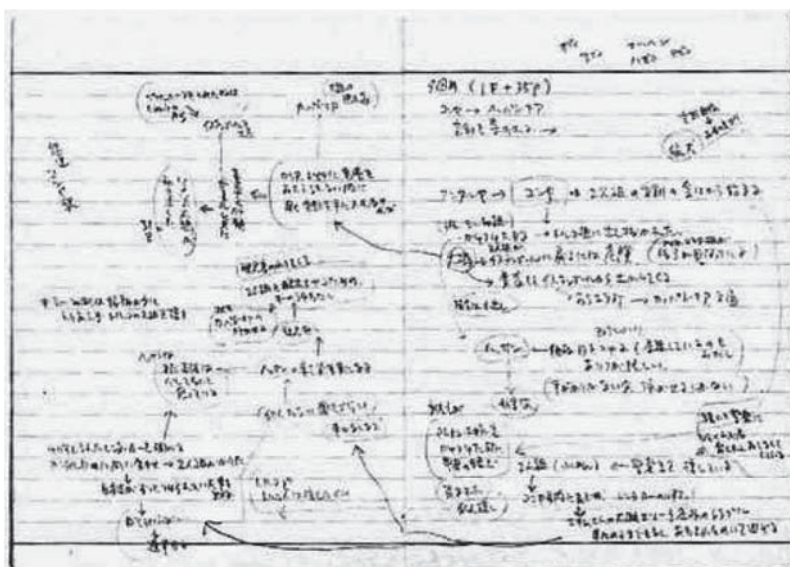


Figure 5: Plot
Source: Aoike 2005, p.113.

Contrarily, in long serialisations, only a rough plot is determined and the details of each episode are created as the story progresses.

(3) Script

Aoike transcribes the revised plot, (2) above, into a script. She writes down every single conversation and action of the characters after visualizing the images of the scenes in her mind. During this process, she creates and recreates the stories. She attempts to generate ideas in a sequential manner (*imoduru-shiki*). Occasionally, even a whim can be expanded into an organized story. Ideas generated in one story can also be transformed and used in another story subsequently. Thus, even at this stage, if different ideas emerge, Aoike changes the theme. Eventually, this leads to her editor's astonishment, 'Was the plot developed in this manner?' (*Konna tenkaini nattan desuka*). After completing the script, she organizes it into 34 pages of *manga*. Searching for necessary information, she attempts to improve the script over the next two or three days. The script comprises four pages (Figure 6).

(4) Storyboard

For *manga* authors, creating a storyboard or *nêmu*, is the most rigorous part of the process, and Aoike is no exception. On the basis of the revised script, (3) above, she transfers all the images in her mind into frames on the storyboard, or *komawari*. It takes three to four days to complete the storyboard (Figure 7).

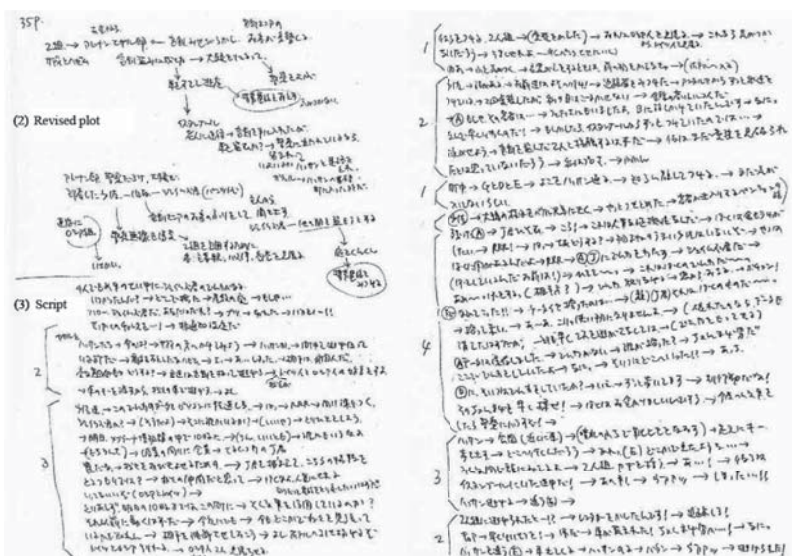


Figure 6: Revised plot and Script
Source: Aoike 2005, pp.114–115.



Figure 7: Storyboard and Finished work
Source: Aoike 2005, pp.116–117.

(5) Finished work

Upon completion of the storyboard, she draws a rough draft. Even at this stage, prior to finalization, she may decide to change the placement of certain frames or the entire storyboard itself. Thereafter, her assistants help her complete the work.

Figure 8 summarizes the creation process of one episode by Yasuko Aoike. The arrow-shaped boxes in the middle indicate the passage of time. The frame under 'To watch and control each episode' depicts Aoike's individual creation process from the plot to the storyboard. Throughout the process, she individually scrutinizes and controls each episode. The arrow at the upper right-hand corner indicates the sequence of episodes. This cycle is repeated every month. The trapezium at the bottom indicates that Aoike's *manga* creation is based on her solid knowledge base.

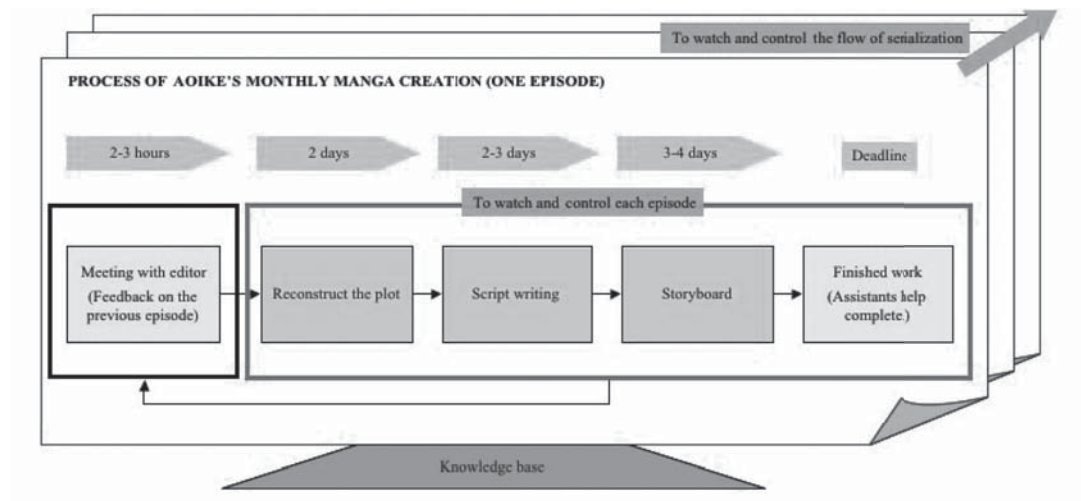


Figure 8: Process of Aoike's manga creation (monthly)

B. Analysis of Yasuko Aoike's creation process using the geneplore model

The initial stage of idea generation, 'generation of preinventive structures' of the geneplore model (Figure 9), includes 'retrieval' from Aoike's knowledge database and 'association' of the retrieved ideas. All ideas or thoughts that are generated in the meeting with her editor are written down, regardless of their meaning. Her plot has the properties of preinventive structures: divergence and ambiguity. Arrows are drawn when a connection is established between the ideas and the direction of the story is roughly determined. In terms of creative realism, when she initiates a new story, she follows *shôjo manga*'s tones and manners, which could be considered to be a preinventive structure. In serialization, the new episode follows the old one; thus, structural connectedness is maintained.

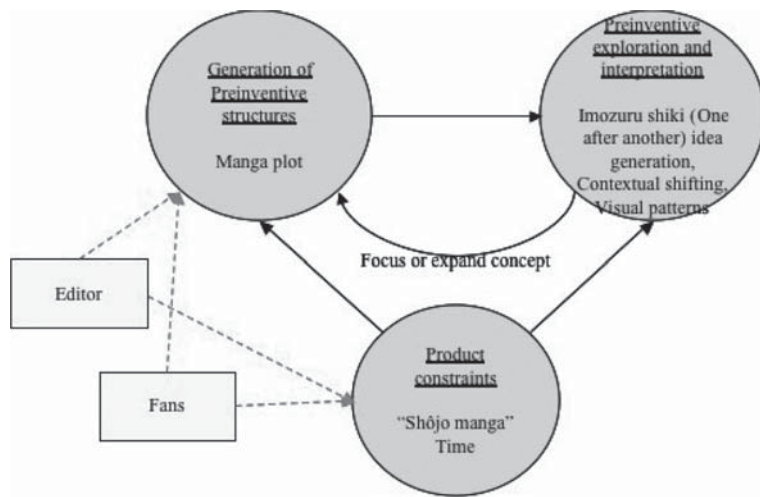


Figure 9: Geneplore model (Yasuko Aoike)

During the stage of plot revision through to storyboarding, Aoike undergoes other cognitive processes: the exploration and interpretation of preinventive structures. The plot is considered as one of the preventive structures, and she explores and interprets the ideas sequentially (*imozuru-shiki*). Throughout the period of plot creation, her cognitive process indicates the ‘imaginative divergence’ of creative realism. Visual patterns and contextual shifting occur during the preinventive exploration and interpretation stage. She places and shifts the leading characters within the various contexts in her mind. Subsequently, she focuses and expands her ideas until the story is completed.

The next step in the process is storyboarding. Storyboarding is the most rigorous aspect of the entire process. At this stage, Aoike finally draws rough pictures on the storyboard. A common feature of *story-oriented manga* authors, like Aoike, is to write words before drawing pictures. They clarify that the visual patterns and images are already in their mind while writing the script (Kawamata 2005). The influence of language on creativity is mixed; occasionally, it constrains creativity and at other times it promotes it. Some contend that visualizations help explore new approaches to solutions in the problem-solving context (Finke, Smith, and Ward 1992).

As illustrated in Figure 9, the geneplore cycle between generation of preinventive structures, and preinventive exploration and interpretation continues during the expanding or focusing of the concept, until the completion of the product. Aoike’s creation process also moves between the generation and exploration phases. Furthermore, as previously stated, she dares to change the story whenever new ideas or concepts emerge. This process continues within the time constraint, until the deadline approaches.

In Moreau and Dahl (2005), certain constraints facilitate the consumer's creativity. While time is occasionally a constraint for creativity, it can also act as a facilitator. Yet, if there is plenty of time on hand, more creative and complete artwork could be possible. However, in business, except for a very limited number of authors, deadlines must be maintained. Similar to the issue of time, expert knowledge may or may not enhance creativity (Smith, Ward and Finke 1995b). If it is too constrained, structural connectedness of creative realism could also become creative conservatism. Given the ambivalent nature of the properties of product constraint in the geneple model, the tones and manners of *shōjo manga* are considered to constrain Aoiike's creativity. However, at the same time, they also serve as a structure to facilitate creativity. Fans are moderately enthusiastic about a surprising story. The story of a psychic was considered to be extremely difficult for *shōjo manga* at that time and was rejected at the outset. Unless there is a time constraint, nothing will materialize. Product constraints as facilitators of creation must be examined further.

The geneple model of creative cognition describes the mental process of creators. However, in *manga* creation, it is practical to assume that the interaction with the editor and fans plays an important role in the process. Criticism from the editor as well as feedback from the fans could restrict creation; however, it could also greatly motivate authors to continue writing. In order to maintain the geneple cycle, the creation of *manga* requires interaction with someone who can support the project. Although creating a *manga* is an individual effort, the entire creative process is rather interactive in nature.

In the preceding section, the cognitive strategy of a Japanese female *mangaka* was examined in order to better understand the initial stage of the *manga* creation process. The following section aims to identify the key factors that facilitate ideation and subsequent content development (Figure 10).

Case study: Naoki Urasawa, 'the man who sold 100 million *manga*'⁵⁾

Naoki Urasawa was born in Tokyo on 2 January 1960. He made his professional *manga* debut with *Return* in 1981. He has received numerous awards throughout his career, as listed in Table 4. Moreover, he is one of the most popular *mangaka*, often referred to as '*I okusatsu wo utta otoko*' (The man who sold 100 million *manga*) (NHK Publishing, 2007).

A. Characteristics of Urasawa's creative process

1. Weekly *manga* creation

The typical creation process of an episode of a weekly *manga* begins with ideation, followed by

5) This part of the paper is primarily based on Kawamata (2008).

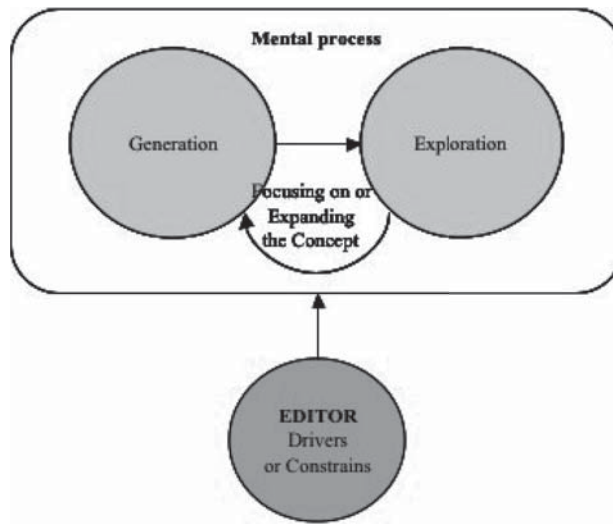


Figure 10: Conceptual framework

Table 4: Naoki Urasawa's award-winning *manga* titles

Year	Awards	<i>Manga</i> titles
1982	New Manga Artist Award of Shogakukan	<i>Return</i>
1990	Shogakukan Manga Award	<i>Yawara!</i>
1997	Japan Media Arts Festival, Excellence Prize	<i>Monster</i>
1999	Tezuka Osamu Cultural Prize, Grand Prize	<i>Monster</i>
2001	Shogakukan Manga Award	<i>Monster</i>
2001	Kodansha Manga Award	<i>20th Century Boys</i>
2002	Japan Media Arts Festival, Excellence Prize	<i>20th Century Boys</i>
2003	Shogakukan Manga Award	<i>20th Century Boys</i>
2004	Angoulême International Comics Festival Prize for a Series	<i>20th Century Boys</i>
2005	Tezuka Osamu Cultural Prize, Grand Prize	<i>Pluto</i>
2005	Japan Media Arts Festival, Excellence Prize	<i>Pluto</i>

Source: Kawamata (2008).

storyboarding, and the finished product. Using Urasawa as an example, the process begins with a meeting between Urasawa and Takashi Nagasaki, an independent editor and storywriter who has been working with Urasawa since his debut. After the meeting, the creation of *nêmu* (storyboard) begins, which is perhaps the most time-consuming and difficult part of the *manga* development process. Once Urasawa has completed the storyboarding, which takes approximately two days, Urasawa's assistants join him in completing the work after obtaining Nagasaki's approval.

Drawing a weekly serial *manga* is an extremely painstaking and difficult task, and numerous *mangaka* have been hospitalized due to excessive workload. Urasawa, for example, had to stop his serial *manga*

in April 2006 as a result of a dislocated shoulder. He had been producing four weekly serials and two biweekly serials for over 20 years, and while drawing, he would invariably lean on his left side, resulting in the dislocation of his shoulder. Urasawa still maintains the production of five serials a month, while undergoing continuous treatment for his shoulder.

2. Ideation is synonymous with discovery: 'Previewing motion pictures'

Young (1986) stated that an idea is in fact nothing more or less than a new combination of old elements. In Nijstad, Stroebe, and Lodewijkx (2006), idea generation is conceptualized as a repeated search for ideas in the associative memory. Urasawa agreed with this concept and claimed that there are no original ideas in his generation. Further, in this regard, he stated, 'it is not the pleasure of an inventor but that of a discoverer'.

Urasawa relates his ideation style to 'a preview of motion pictures', wherein some images and scenes as well as certain catch phrases, flash, drift, and float through his mind. From that point, he seeks to determine why they have appeared in his mind and attempts to find the solution, finally acquiring it. In other words, it is similar to the process of understanding scenes of a dream that require interpretation. Urasawa states that when idea generation begins, it is as if he is changing the gears of a car and the story unfolds naturally.

'The best way to get an idea is to get an idea' (Foster 1996, p.158). Other *mangaka*, not only Urasawa and Aoike, continuously think and search for ideas. This probably applies to various professionals, from artists to scholars. In creative cognition, the continuous movement between generation and exploration in the mental process is necessary. However, in order for this to be productive, one must have a vast knowledge base to search for the idea.

When Aoike is required to provide tips for *manga* creation, she advises sensitivity to surroundings; moreover, she suggests that attempts be made to capture ideas from other content domains such as films, television programmes, and newspapers. She describes her situation as if her devices for idea generation and exploration are always ready to work at a subconscious level. Further, training in story building is also an important aspect. She attempts to predict the stories of films and books whenever possible. If the story develops unexpectedly, ends surprisingly, or skilfully provides detailed descriptions of the subject, she memorizes them and later makes notes. Good films and novels are important sources of information and help improve sensibility (Aoike2005).

Another talented *shôjo mangaka*, Yoko Shoji, who used to produce 250 pages of *manga* per month, claimed that she read one book a day for 10 years in her twenties and watched two movies and dramas a day for 10 years in her thirties. She believes that as a result, she has never been at a loss for an idea (Kawamata, 2005).

As shown in the above cases, a knowledge base is a prerequisite for creativity in creative cognition. Yet, as Smith, Ward, and Finke concluded, there are numerous mixed research results for creative cognition. For example, although prior knowledge is usually necessary for creative cognition, it is equally necessary to do things in a new way. Occasionally, expert knowledge causes fixation and hampers creative thinking. Smith, Ward, and Finke stated that distinguishing between the situations in which prior knowledge must be used and those in which it must be rejected continues to be an important issue (Smith, Ward and Finke 1995b, p.331).

3. Visualization

Based on his professional experience, Foster (1996) stated that the creative people he worked with in advertising thought with pictures instead of with words. One of them said to Foster, 'Once you get a visual idea, the words are easy'.

In Urasawa's interview with a popular novelist, Miyuki Miyabe, he proposed that ideas shrink when they are verbalized. Consequently, he would never take notes when generating ideas. In fact, he would even visualize novels when reading them. Kashiwa Sato, a noted art director, commented that he never expresses his ideas in words until they are finalized (NHK Publishing, 2006). In addition, Mogi (2007) stated that certain verbal-oriented idea generation support software may be useful in sharing ideas with others; however, he questioned the effectiveness of generating ideas in this manner as it may inhibit ideation.

Thus, it may be stated that the influence of language on creativity is varied; it may constrain creativity or promote it. Certain researchers have suggested that visualizations help in exploring new approaches towards finding solutions in the context of problem-solving (Finke, Smith, and Ward 1992). Kawamata (2005) suggested that a story-oriented female *mangaka* visualized her characters and directed them in her mind before placing them on the storyboard.

B. Product facilitators and/or constraints

1. Time: Deadlines

The product constraints of the geneplore model (Figure 4) are ambivalent in nature. With regard to constraints, Foster (1996) stated, 'The most stimulating limitation I've ever found is time. Deadlines spur you to get something accomplished. Give yourself one'. Further, Moreau and Dahl (2005) suggested that certain constraints in fact facilitate consumer creativity. While time is occasionally a constraint for creativity, it may also serve as a facilitator. In the case of a weekly *manga* serial, the time constraint—primarily deadlines—enables the *mangaka* to complete his/her work. Urasawa commented that although it seems impossible at first, the work is always completed on time. Nevertheless, with regard

to the quality of *manga*, if there is more time, the artwork could be more creative and complete.

2. Japanese *manga* editors

In terms of creative realism, the editor as well as the fans must be considered as factors that drive the genealogy cycle forward (Figure 10). Both criticism from the editor and feedback from fans restrict creation; however, they also greatly motivate the *mangaka* to continue writing. Similar to other product constraints, the editor and fans play a dual role. Although creating a *manga* is an individual effort, the entire creative process is considerably interactive in nature. In addition, not all *manga* are produced by an individual; in fact, editor-*mangaka* (occasionally with writer) teams are quite common in Japan. This leads to the following question: How does the dyadic relationship between the *mangaka* and editor (writer) enhance the entire creative process?

In general, Japanese editors are office workers; there are very few freelance *manga* editors. Since they work for publishing companies, they have to undergo personnel transfers caused by job rotations. As the ability of the editors significantly influences the performance of the *mangaka*, this system has its own merits and demerits. Even if a *mangaka* is unfortunate enough to have a mediocre editor appointed to him/her, the editor would be transferred within a few years due to job rotations; however, it can also happen that the *mangaka* may lose an excellent editor. It is often said that you can tell the editor behind the *mangaka* just by taking a look at the *manga*, because the tone and manner of the *manga* changes drastically with the editor.

Even if an editor wants to be involved in the entire serial or be in charge of a certain *mangaka*, it is almost impossible under the current situation in Japan. Naoki Urasawa commented that the editors are not always concerned with the *mangaka*'s work because they get paid regardless of the performance of the *manga*. Urasawa also criticised the current situation wherein the *mangaka* cannot choose their editors until they become real hit-makers (Kawamata 2008). However, the Japanese system has a few other merits for publishers that will not be discussed in this paper.

C. Editor: Takashi Nagasaki

Takashi Nagasaki was born in Miyagi prefecture in 1956. He worked as an editor in Shogakukan, one of the three largest *manga* publishers⁶⁾ in Japan, and as an editor with Urasawa since his debut. In 2001, Nagasaki left Shogakukan and became an independent editor and writer of *manga*. In the early stages of Urasawa's career, Nagasaki worked for Shogakukan and helped Urasawa with his *manga* creation. While Nagasaki believed in Urasawa's potential, he commented much later that he had never thought

6) The top three *manga* publishers are Kodansha, Shogakukan, and Shueisha.

Urasawa would become such a popular *mangaka*. After Nagasaki left Shogakukan, he became a kind of co-producer, sharing all responsibilities with Urasawa. In fact, occasionally, Nagasaki also played the role of a writer, providing Urasawa with stories. Nagasaki noted, with reservations, that while the *manga* belongs to the *mangaka* who draws the pictures, editors are equivalent to '*E wo egakanai mangaka*' (a *mangaka* who does not draw pictures).

When referring to the role played by Nagasaki, Urasawa described it as a compass. He stated that he would sometimes wander in the maze of creation; at times like these, discussions, and sometimes arguments, with Nagasaki would help him to find solutions. Unlike the typical Japanese editor/*mangaka* relationship, which is personal, their relationship is purely professional; they have never gone out for dinner or drinks. Further, Urasawa asserted that given the pressure of the deadlines when creating a serial *manga*, he required someone like Nagasaki to share the burden in order to maintain the quality of his *manga*. In a brief interview with the author, Nagasaki stated that his relationship with Urasawa is not how it appears in the publications. Nagasaki believes himself to be an original writer rather than an editor; he provides the stories and Urasawa develops it into a *manga* as Nagasaki has imaged. Unless the *mangaka* is competent and trusted, it would be impossible to follow this style of working. As a result, it may be stated that considerable trust is required in order to ensure that the entire creative process continues to move forward.

Urasawa commented that when he is in the process of *manga* development, he plays the role of two people, a *mangaka* and a producer. In the preliminary meetings, he works as the producer and discusses the plot, regardless of the *mangaka* within him. Urasawa describes it as if the producer in him orders the *mangaka* in him, thereby motivating him to ensure the quality of the product. In an experimental TV programme on the story development process, another popular novelist, Ira Ishida, described that he has another persona within him and that person objectively views and comments on the ideation process (NHK Sogo [NHK General] 2007).

In literature regarding brainstorming, certain findings suggest that individuals and not groups must undertake idea generation. With regard to dyads, the productivity loss is relatively small. Idea generation can be conceptualized as a repeated search for ideas in the associative memory. However, this search for ideas is not always successful. While group members generate fewer ideas than individuals working in isolation, they are generally more satisfied with their performance. In certain cases, the easier a task, the more likely it is to lead to satisfaction. (Nijstad, Stroebe, and Lodewijkx 2006)

However, in the professional creative context, a task is not always easy and satisfaction without result means nothing. In the case of Urasawa and Nagasaki, Urasawa the producer and Nagasaki the editor may provide Urasawa the *mangaka* something that he can trust and count on. Ishida's case may also

imply that that persona in him is trustworthy. Since creation is a work in isolation, it may be suggested that creation necessitates trust, and trust helps in facilitating the cycle in the geneplore process.

Limitations and further research

The purpose of this article was to further understand the creators' cognitive processes during content (*manga*) development. The article also explored the creation system of Japanese *manga* with an emphasis on the dyadic relationship between *mangaka* and editors. Although this paper is preliminary in nature, the findings suggest that Yasuko Aoike, a long-selling *manga* author, develops her story using the geneplore model of creative cognition. Her creative process also displays the two properties of creative realism: structural connectedness and imaginative divergence. In the case of Urasawa, it is indicated that the creation of a *manga* necessitates trust in the dyadic relationship between a *mangaka* and an editor, or between the inner personas of a *mangaka*, which, in turn, facilitates the cycle of the geneplore process.

Since only two case studies are conducted in this article, generalizations of the findings are restricted. Hence, it is necessary to conduct empirical validation in the future. Another limitation of the present study is that it relies on the secondary data for analysis. There are numerous other useful methods to approach and analyze creativity; in order to better understand creativity in the content development context, various perspectives must be examined.

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